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January 5, 1993

Ms. Debra Felton, P.E. (Code 1821/DF)
Remedial Project Manager
Northern Division
Naval Facilities Engineering Command
10 Industrial Highway, MS#82
Lester, Pennsylvania 19113

Reference: Contract No. N62472-90-D-1298, CTO No. 0090

Subject: Final RCRA Facility Assessment - Sampling Visit Work Plan
NWIRP, Calverton, New York

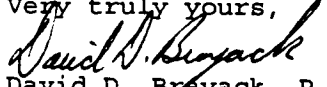
Dear Ms. Felton:

HALLIBURTON NUS Environmental Corporation is pleased to submit four copies of the subject report for your use. The report was revised in accordance with comments received from TRC members and as discussed between HALLIBURTON NUS and the Navy. The comment/response letter incorporating Navy comments is attached. As requested, copies of the report and comment/response letter have been forwarded directly to the TRC members, as follows.

A. Bellina, USEPA (3 copies)	J. Middelkoop, NYSDEC (2 copies)
R. Becherer, NYSDEC Region I (1 copy)	L. Wilson, NYS Health Dept (1 copy)
S. Robbins, SCDHS (1 copy)	J. Ohlmann, Grumman (1 copy)
R. Booth, NAVAIR (1 copy)	M. Simonson, DPRO (1 copy)
S. Antenen, The Nature Conservancy (1 copy)	

If you have any questions or require additional information, please call me at (412) 921-8375.

Very truly yours,


David D. Brayack, P.E.
Project Manager

/DDB

cc: Mr. R. Boucher (Navy) w/o attachment
Mr. D. Rule (Navy) w/o attachment
Mr. J. Trepanowski (HNUS)
Ms. D. Wroblewski (HNUS)
Ms. P. Patton (HNUS) w/o attachment.
File: 2399

Responses to Comments
RCRA Facilities Investigation Sampling Visit Work Plan
Naval Weapons Industrial Reserve Plant
Calverton, New York

Mr. A. Bellina, P.E., Chief of Hazardous Waste Facilities Branch, U.S. EPA

1. Comment: Section 2.2, Page 10. The second paragraph from the bottom of this page states that the Field Operation Leader (FOL) will be responsible for oversight of the drillers and the geologic log. The field geologist rather than the FOL should be responsible for these tasks.

Response: The text will be changed to read "Field Geologist" rather than "FOL".

- 2.A Comment: Table 3-1. TCL Volatile Organic Compounds - Some of the contract required detection limits (CRDLs) listed in this table are higher than the MCL (i.e., vinyl chloride). It would be prudent to achieve the MCL as the detection limit, if possible.

Response: Table 3-1 is being revised to reflect the current CLP SOW (1990). Please note that the CRQL and CRDL values in the 1990 SOW are higher than in the 1988 SOW. However, MDLs and IDLs will be reported by the laboratory and the Navy will take steps to ensure that they are equal to or less than the MCLs.

- 2.B Comment: TAL Metals and Cyanide - No CRDLs or otherwise required detection limits are listed for these parameters in the soil, solid waste and sediment samples. Some detection limits should be provided.

Response: Table 3-1 will be edited to include CRDL values for TAL Metals and Cyanide analysis of solid media. IDLs will also be presented in the RFA report.

Coal Storage Pile Area

3. Comment: The work plan indicates that there were reports of solvents being placed on the piles for eventual destruction during the burning of the coal, and that two wells near a marsh which receives precipitation runoff from the coal pile, were contaminated w/low levels of solvents. But the report does not indicate whether or not those wells have been tested for other constituents. Please indicate specifically for which constituents was sampled performed.

Response: The production well samples were collected and analyzed for full TCL/TAL analysis as part of the Site Investigation for the Site. The RFA Work Plan presents those parameters for which positive detections were obtained. Please refer to the Site Investigation Report (April 1992) for details of the full analyses of these samples.

- 4.A Comment: Section 4.3.1.3, Page 29. This sampling plan proposes to take samples from the north, east and west of the current coal pile. Please indicate why no sampling is proposed for the southern side of the pile.

Response: Three soil borings are expected to be sufficient to determine the presence or absence of solvent contamination in the area of the former coal pile (a potential source area). The proposed soil boring locations are evenly distributed across the area of the former coal pile to provide a representative sample of potential soils contamination because of downward migration of contaminants from the former coal pile.

The north, south, east, and west locations in reference to the remaining coal pile are arbitrary, and if requested, one soil boring can be moved to this location.

- 4.B Comment: Since the borings will be to the water table, consideration should be given to grouting the borings even if the OVA scan indicates nothing. Poorly packed borings could create a preferential pathway for contaminant migration if there are contaminants in the coal pile. The cuttings, if clean, could be spread on the ground near the boring.

Response: The text will be edited to indicate that soil borings will be backfilled to the surface with cement/bentonite grout. Cuttings will be screened with the OVA and containerized if OVA readings above background are present or spread on the ground near the boring if no OVA readings are observed.

5. Comment: Table 4-1, Page 30, and Associated Text Pages 29-33. Due to the possibility that additional hazardous waste constituents might be present, several samples should be run for a full TCL/TAL analysis. Possibly one waste sample and two each of the sediment and subsurface soil samples could be run for the full scan, with preference given according to the OVA scan and visual inspection criteria.

Response: The Coal Pile is being investigated as a result of positive detections of volatile organic compounds in the nearby production wells and reports of solvent disposal on the coal pile. Current information concerning the area does not suggest the presence of other hazardous constituents, thus the samples are only being analyzed for TCL Volatiles plus freon.

However, if during the sampling activities, soils/sediments are collected which are visually characteristic of a sludge or oil, then they will be analyzed for the full TCL/TAL parameters. For the work plan, it is assumed that up to two sludge samples will be collected at each site.

6. Comment: Section 4.3.1.3, Page 31. Please indicate how the shallow cores will be handled until coring is complete and a determination is made about which core to retain for sampling. It is important that the earlier cores are handled in a manner that minimizes the loss of volatiles until all of the cores have been field screened by OVA.

Response: Text will be edited to indicate the following general procedure. The initial split spoon sample in each boring will be collected as a sample for chemical analysis (i.e. placed into required sample containers, labeled, and temporarily stored in a cooler). If the next split spoon sample in the boring has higher OVA readings than the first, or greater visual evidence of contamination, the first sample will be discarded and the second split spoon sample will be collected for chemical analysis. The third, fourth, and subsequent split spoon samples in the boring will be compared to the previous samples in the boring in the same way to the total depth of the boring. In each boring, the sample at the soil/water interface will be submitted for chemical analysis.

The sample above the soil/water interface having the highest OVA readings or the greatest visual evidence of contamination will also be submitted for chemical analysis.

Electronic Counter Measures (ECM) Area

7. Comment: Page 33 indicates that there is visible evidence that construction debris was disposed near the area in the past, and that historic photographs of the facility indicate disturbances of the soils in the area during the 1960's and 1970's. Therefore, as there may have been additional hazardous waste constituents present at this area, we recommend that a full TCL/TAL analysis be run on the samples indicated in Table 4.

Response: The ECM area is being investigated as a result of the positive detection of volatile organic compounds in monitoring wells offsite to the east. Current information concerning the area does not indicate the presence of other hazardous constituents thus the samples are only being analyzed for TCL Volatiles plus freon.

However, if during the sampling activities, soils/sediments are collected which are visually characteristic of a sludge or oil, then they will be analyzed for the full TCL/TAL parameters. For the work plan, it is assumed that up to two sludge samples will be collected at each site.

8. Comment: (pp. 36 and 39). More groundwater samples need to be taken than the one sample indicated on Table 4-2.

Response: The lower soil sample from each of the 8 soil borings will be collected across the soil/water interface. These eight samples will provide a qualitative (and partially quantitative) indication of the presence or absence of groundwater contamination. The positive detection of soils and/or groundwater contamination at the ECM area will probably result in the recommendation that groundwater at the ECM area be further investigated as part of a full RFI.

9. Comment: Since the borings will be to the water table, consideration should be given to grouting the borings even if the OVA scan indicates nothing. Poorly packed borings could create a preferential pathway for contaminant migration. The cuttings, if clean, could be spread on the ground near the boring.

Response: The text will be edited to indicate that soil borings will be backfilled to the surface with cement/bentonite grout. Cuttings will be screened with the OVA and containerized if OVA readings above background are present or spread on the ground near the boring if no OVA readings are observed.

10. Comment: Please indicate how the shallow cores will be handled until coring is complete and a determination is made about which core to retain for sampling.

Response: Text will be edited to indicate the following general procedure. The initial split spoon sample in each boring will be collected as a sample for chemical analysis (i.e. placed into required sample containers, labeled, and temporarily stored in a cooler). If the next split spoon sample in the boring has higher OVA readings than the first, or greater visual evidence of contamination, the first sample will be discarded and the second split spoon sample will be collected for chemical analysis. The third, fourth, and subsequent split spoon samples in the boring will be compared to the previous samples in the boring in the same way to the total depth of the boring. In each boring, the sample at the soil/water interface will be submitted for chemical analysis. The sample above the soil/water interface having the highest OVA readings or the greatest visual evidence of contamination will also be submitted for chemical analysis.

11. Comment: Section 4.3.2.3, Pages 38 and 39 - It is strongly recommended that the off-site existing Suffolk County monitoring wells be resampled at the same time that the on-site well is sampled. Arrangements can be made with the Suffolk County Department of Health to obtain samples from these wells. Also, the well adjacent to building 07-39 is called a monitoring well rather than a production well. Please indicate whether the described use of a tap is an accurate description of sampling for this well.

Response: Pending approval from Suffolk County, three of the offsite monitoring wells near the ECM will be sampled and analyzed for TCL volatile organics and freon. The proposed wells for sampling are MW1, MW7, and the monitoring well due east of MW1 (southern most well).

The supply well at the ECM area will be sampled directly from the tap. The text will be edited to refer to the well as a supply well rather than a monitoring well.

Cesspool/Leach Field Areas

12. Comment: Page 40 mentions that historical and current use information will be used to determine which of these areas will be eliminated from sampling requirements. We would like to know which of the areas are being omitted, and the evidence which justifies their omission.

Response: Table 4-4 has been updated. The selection of areas for investigation is based on a comprehensive evaluation, conducted by knowledgeable Grumman personnel, of current and historic activities performed at each area. In general, all areas are included which currently or historically have used solvents. Solvents are not believed to have been used in the areas not being investigated.

13. Comment: Page 40 also indicates that the decision to continue with sampling of soils at specific areas will be based on the soil gas results, with sampling planned for locations with the highest soil gas concentrations. Although soil gas surveys can be an indication of where the concentrations of organics are highest, they cannot be the only test used to determine that an area is not contaminated. Therefore, soil borings need to be done at each of the areas where historical evidence indicates possible contamination. At least some of the samples should be run for a full TCL/TAL analysis.

Response: The general focus of this investigation is on volatile organic contamination because of their relative toxicity, mobility, longevity, and prevalence at the site.

Also, as indicated in the Work Plan, a minimum of one soil boring will be conducted at each cesspool/leach field area that is investigated. Samples from these borings will be analyzed for TCL volatiles, freon, TAL metals and cyanide. Of the parameters on the TCL/TAL list, testing for PCBs/pesticides and semivolatile organics only are not being proposed. The rationale for excluding these parameters include the low potential for them to be present, and if present, the low mobility of these constituents. Positive identification of contamination at any of the areas would probably result in a more detailed investigation of soils and groundwater contamination as part of a full RFI.

14. Comment: The report states that one groundwater sample will be collected from the well at Building 07-43T. Please note that more than one groundwater sample will be needed.

Response: Current information indicates that only one supply well exists at Building 07-43T. The text will be edited to refer to this well as a supply well rather than a monitoring well. There is no information that any contamination currently exists in this area. And as a result installation of monitoring wells would be premature. Positive identification of groundwater contamination at the area through groundwater testing will probably result in a more detailed groundwater investigation as part of a full RFI.

15. Comment: Section 4.3.3.3, Page 40 and Table 4-3. If it is possible to get waste or sludge sample directly from the cesspools, this media would be useful to sample.

Response: Waste and sludge samples typically have numerous interferences which affect the usability of the data. Also, sampling of the sludges would be more indicative of current practices and may not be representative of effects on the environment. It would be preferable to sample in the proposed areas immediately adjacent to the cesspools.

- 16.A Comment: Section 4.3.3.3, Page 44. Since the borings will be to the water table, consideration should be given to grouting the borings even if the OVA scan indicates nothing. Poorly packed borings could create a preferential pathway for contaminant migration. The cuttings, if clean, could be spread on the ground near the boring.

Response: The text will be edited to indicate that soil borings will be backfilled to the surface with

cement/bentonite grout. Cuttings will be screened with the OVA and containerized if OVA readings above background are present or spread on the ground near the boring if no OVA readings are observed.

- 16.B Comment: Please indicate how the shallow cores will be handled until coring is complete and a determination is made about which core to retain for sampling.

Response: Text will be edited to indicate the following general procedure. The initial split spoon sample in each boring will be collected as a sample for chemical analysis (i.e. placed into required sample containers, labeled, and temporarily stored in a cooler). If the next split spoon sample in the boring has higher OVA readings than the first, or greater visual evidence of contamination, the first sample will be discarded and the second split spoon sample will be collected for chemical analysis. The third, fourth, and subsequent split spoon samples in the boring will be compared to the previous samples in the boring in the same way to the total depth of the boring. In each boring, the sample at the soil/water interface will be submitted for chemical analysis. The sample above the soil/water interface having the highest OVA readings or the greatest visual evidence of contamination will also be submitted for chemical analysis.

17. Comment: Section 4.3.3.3, Page 46. The text indicates that the existing groundwater well is a monitoring well, rather than a production well. If the well is a monitoring well, please indicate whether the described use of a tap is an accurate description of sampling for this well.

Response: The text will be edited to refer to this well as a supply well rather than a monitoring well.

- 18.A Comment: Section 4.8, Page 50. The plan states that "Pending the results of the RFA-SV testing, these decontamination fluids will be discharged to the onsite wastewater treatment plant." Discharge of the methanol rinse to the wastewater treatment plant may not be acceptable. Also, the treatment plant may not have the capability to handle a slug of methanol.

Response: It is expected that less than one gallon of methanol will be used during the proposed investigation. The methanol would normally be diluted in the decontamination fluid to a concentration of less than 0.5% and then metered into the treatment plant. As a result, a slug of methanol, which may affect the performance of the treatment plant, would not be expected. Also, methanol is biodegradable and would be expected to be degraded very rapidly.

- 18.B Comment: Please refer to earlier comments regarding the backfilling of the soil boreholes.

Response: The text will be edited to indicate that soil borings will be backfilled to the surface with cement/bentonite grout. Cuttings will be screened with the OVA and containerized if OVA readings above background are present or spread on the ground near the boring if no OVA readings are observed.

19. Comment: Section 12.3, Pages 62 and 63. The surface water data should be compared to Ambient Water Quality Criteria as well as to drinking water standards.

Response: A reference to Ambient Water Quality Criteria will be added to this section.

1. Comment: Coal Pile Storage Area. Since the direction of groundwater flow in this area is probably ESE to ENE, it would be preferable to locate both CP-SB09 and CP-SB11 close to the remaining pile in these directions to obtain the maximum information from the soil boring samples to be taken at the water table.

Response: The presence of contamination in the nearby production wells to the north also indicates possible modification of local groundwater flow patterns from the expected ESE to ENE. The soil borings were positioned to help determine the presence or absence of soil contamination underneath the former coal pile resulting from the downward migration of contaminants and also provide an indication of groundwater contamination beneath the coal pile area. As this is an initial investigation, the soil borings are evenly distributed across the area of the former coal pile.

2. Comment: ECM Area. The direction of shallow groundwater flow in this area is ENE, based on water table elevation data collected by the SCDHS at the test facility outside the fence (not ESE, as stated in Section 4.3.2.3). Given that the highest TCA concentration was found in SCDHS well MW-7 (Figure 4-2), boring ECM-SB03 should be moved to a location in between the former solvent storage location and MW-7, and a groundwater well should be installed at this location (screened 0'-10' below the water table).

Response: Based on regional information, there is a local groundwater divide located in this area that migrates across the area. As a result, the exact groundwater flow patterns may vary and can be determined only through extensive investigation of the aquifer over time.

As requested, ECM-SB03 will be relocated north to point between the former solvent storage location and MW-7.

The installation of a monitoring well at the ECM area as part of this investigation may be premature. The lower soil sample in each soil boring will be collected across the soil/water interface and will provide an indication of potential groundwater contamination. Positive identification of groundwater contamination will probably result in a more detailed groundwater investigation as part of a full RFI.

Comment: The discussion of groundwater sampling at the ECM site (page 38) refers to existing wells, while Figure 4-2 indicates only one supply well on site; this discrepancy should be corrected. Also, samples should be collected at a point in the system before the storage tank, if one is present.

Response: The text will be edited to refer to a single supply well rather than exiting wells and/or a monitoring well.

The text will also be edited to specify that the groundwater sample will be collected at a point in the system before filtration apparatus and any storage tanks, if possible.

3. Comment: Cesspool/Leach Field Areas. The area of primary concern to the SCDHS is the old, abandoned leach field for the Sewage Treatment Plant located near the south gate (since organics were detected in SCDHS monitoring well S-51591 located approximately downgradient of this area); it is not clear from the text, Figure 1-3, or Table 4-4 that this area will be addressed.

Response: The large leach field for the Sewage Treatment Plant is addressed as Building 06-17. Please provide relevant information on SCDHS monitoring well S-51591 including location, depth, and results. Please note also that Site 6A, the fuel calibration area, is located adjacent to this leach field area, is known to contain solvents, and is currently under investigation as part of a full RFI.

Comment: The procedure for identifying disposal systems, and the rationale for selecting those to be sampled, need to be described. It is important that old site plans and the histories of each building be considered, even if current use would not indicate a potential for industrial discharges. In addition, floor drains from every building need to be traced, and roof drains need to be checked for interconnections with waste discharge pipes; pools connected to such systems should be investigated.

Response: The selection of specific cesspool/leach field areas for investigation is based on a comprehensive evaluation, conducted by knowledgeable Grumman personnel, of current and historic activities performed at each area. Each area which is a possible source area has been identified and will be investigated. If contamination is found at an area, then the extent of contamination would be determined through a RFI.

Comment: The proposed soil gas surveys would only identify VOCs, while possible missing semi-volatile organics and metals. It is recommended that all pools identified as possible present or historic points of contamination discharge be uncovered and the contents inside be samples down through the bottom. The work plan should also provide that groundwater monitoring wells be installed wherever significant contamination is detected.

Response: The present Work Plan proposed that a minimum of one soil boring will be installed at each area that is investigated. The boring location will be based on the results of the soil gas survey, but it is anticipated that the borings will be drilled immediately adjacent to the cesspools/leach fields. These samples will be analyzed for volatile organics and inorganics. Listed semivolatile organics are not expected to be present at significant concentrations based on chemical used at the facility, and the mobility and toxicity of the chemicals.

We do not concur that cesspools should be sampled at this time. Waste and sludge samples typically have numerous interferences which affect the usability of the data. Also, sampling of the sludges would be more indicative of current practices and may not be representative of effects on the environment. It would be preferable to sample in the proposed areas immediately adjacent to the cesspools.

The lower soil sample from each soil boring will be collected from the soil/water interface and will provide a qualitative indication of groundwater contamination. Positive identification of contamination will probably result in a more detailed soils and groundwater investigation as part of a full RFI.

4. Comment: Investigation of McKay Lake. The draft work plan does not include an investigation of McKay Lake, which the SCDHS has previously requested. Such an investigation should include bottom sediment and fish tissue analyses for the full range of possible contaminants.

Response: McKay Lake is being addressed by Grumman Corporation.

5. Comment: Fire Training Area. The report does not address additional work needed at the Fire Training Area, including expanded efforts to locate drums alleged to have been buried in the vicinity.

Response: The Fire Training Area is currently being addressed as part of a full RFI.

Mr. John Middelkoop, P.E., Director, Bureau of Eastern Hazardous Waste Programs, New York State Department of Environmental Conservation.

1. Comment: A full TCL/TAL parameter list must be analyzed for some of the samples at Coal Pile Storage Area, Electronic Countermeasures Area, and Cesspool/Leach Field Areas, since pesticide/PCB's have been found elsewhere onsite.

Response: The primary purpose of the investigation at the coal pile and ECM areas is to locate the source of observed groundwater contamination near these areas. The parameters to be tested are based on chemicals used at the facilities, historical practices, and other indications of contamination at various areas, (e.g. solvents in the production wells near the coal piles and solvents in the offsite groundwater near the ECM area. The random testing of samples for full TCL/TAL parameter list would not be prudent. PCBs/pesticides detected at the facility were associated with waste oil (which are commonly contaminated with PCBs). There is no reports of waste oils being disposed or used in the referenced areas.

However, if during the sampling activities, soils/sediments are collected which are visually characteristic of a sludge or oil, then they will be analyzed for the full TCL/TAL parameters. For the work plan, it is assumed that up to two sludge samples will be collected at each site.

2. Comment: On page 5 of Table 3-1, the holding time given for the volatile samples is fourteen (14) days. Please note that the Department, as per page D-16, of the New York State Department of Environmental Conservation RCRA Quality Assurance Project Plan Guidance document, requires a holding time for soil volatile sample of only seven (7) days.

Response: This table will be edited to indicate a 7 day holding time for soil VOA samples. Fourteen days will be retained for water samples since they will be preserved.

3. Comment: On pages 31, 37, and 44, the use of a stainless steel trowel is fine, however, a plastic trowel, unless constructed of Teflon, must not be used for placing the soil into the volatile container.

Response: The text will be edited to delete the reference to a plastic trowel. Only a stainless steel trowel will be discussed.

4. Comment: Please note that soil volatile containers must be completely filled, i.e. no headspace, similar to aqueous volatile samples.

Response: The TCL VOC portion of soil samples will be collected with a minimum headspace. However, it is not always possible to completely eliminate headspace because of the nature of the soils and/or the container. It is hoped that the new 60 ml vials used for soil samples will reduce this problem.